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Undescribed plants from Guatemala. VIII.

JOHN DONNELL SMITH.

(WITH PLATES I AND II.)

Prof. Alfred Cogniaux, Dr. M. T. Masters and Dr. W. O. Focke, distinguished monographers of orders, have contributed to this paper descriptions of new species detected by them among the plants submitted to them respectively for determination.

Bocconia vulcanica.—Branchlets, foliage and panicle smooth and shining; leaves glaucous beneath, obovate-elliptical ($5-6 \times 2\frac{1}{2}$ in.), acute apex long-mucronate, tapering below to broadly sessile base, margin evenly glandulo-mucronate with rounded indentations: bracts foliaceous, bractlets scarious: sepals oval ($6 \times 3\frac{1}{2}$ lines), exceeding pedicels, recurved-cuspidate: 10–15 stamens a third shorter, filaments half as long as linear anthers: stout style prolonged from ovary, a half shorter than stigmas: capsule (immature) elliptic-oblong, twice exceeding stipe.—*B. integrifolia* Humb. et Bonpl., likewise arborescent and with lobeless leaves crowded about base of large drooping panicle, is distinct by indument, long-petiolate leaves entire or nearly so, stamens equaling calyx, subsessile anthers.—Slopes of Volcan de Agua, Dept. Zacatepequez, alt. 10,000 feet, April, 1890, J. D. S. (Ex Pl. Guat. qu. edid. J. D. S. 2172.)

Chorisia soluta.—Calyx shortly pedunculate, 3-bracteolate, ligneous, cupulate-campanulate (20 lines long), aureo-lanate within, irregularly 5-lobed: petals distinct, linear-spatulate ($5-6$ in. \times 10 lines), apex emarginate, sericeo-tomentose and fuscous without, glabrate and red within: stamens three-fourths as long; column short (10 lines), annulate at apex;

exterior lobes one-fifth as long, ovate, entire, hirsute; interior branches 10–12, filiform, 2-antheriferous, anthers long and anfractuose: ovary free, imperfectly 5-celled, ovules pyriform.— A tree with the gigantic trunk and flat widespreading head of *Bombax Ceiba* L., and with digitate leaves. The incomplete character is drawn from the only parts within reach of the collector—freshly fallen flowers. The staminal column partite to annulus into doubled number of branches is exceptional for the genus.—Shores of Lake Amatitlan, Dept. Amatitlan, alt. 3,900 feet, Feb., 1890, J. D. S. (Ex Pl. cit. 1924.)

Myrodia Guatemalteca.—Leaves elliptical or obovate-elliptical (8–10 × 3–4 in.), abruptly acuminate, obtuse base 3-nerved, veins pubescent, axils barbate: flowers solitary or geminate, axillary and extra-axillary, approximated: calyx twice longer than deflexed minutely 3-bracteolate pedicel, sericeous within, 5–6 unequal lobes ovate (2–3 lines): petals tomentulose, elliptic-oblong (1 in.), shortly unguiculate, half-exsert: staminal column shorter, its 5 lobes regularly 4-antheriferous: cells of ovary 2, 2-ovulate, style pentagonal, stigma bilobed: immature fruit ovoid (5 lines).—*M. funebris* Benth., *ex descr.* nearly related, differs by lanceolate leaves, subsessile solitary flowers, erose calyx equalling claws of petals and twice exceeded by 25–30-antheriferous staminal column.—Pansamalá forest, Dept. Alta Verapaz, alt. 4,000 feet, Jan., 1889, v. Türckheim (Ex Pl. cit. 1410): April, 1889, J. D. S. (Ex Pl. cit. 1634.)

Heteropteris retusa.—Leaves short-obovate (20–24 × 15–18 lines), each end obtuse, apex retuse and cuspidate, sparsely pilose, veins rufo-pubescent and uni-glandular above base of lowest pair; petiole terete, bi-glandular at or below apex: panicles rufo-tomentulose, 2–3-fasciculate from axils of reduced upper leaves and terminal, umbellately compound, sub-equalling leaves; pedicels 3–5, bracteolate in middle, exceeding flowers: sepals minute: petals twice longer (2 lines), oblong, base rounded, carinate, shortly unguiculate, crimson; the interior broader with stout claw and denticulate: filaments exceeding calyx, anthers oblong, connective incrassate: styles a little shorter.—Near *H. cotinifolia* Ad. Juss., but with different leaves and glands, solitary panicles, smaller flowers, etc.—Erect shrub 8–12 feet high with brachiate lenticellate branches, along streams near Escuintla, Dept. Escuintla, alt. 1,100 feet, March, 1890, J. D. S. (Ex Pl. cit. 2068.)

RUBUS OCCIDENTALIS L., var. **grandiflora** Focke.— Differt a planta typica floribus fere duplo majoribus post anthesin nutantibus.— Slopes of Volcan de Agua, alt. 8,500 feet, April, 1890, J. D. S. (Ex Pl. cit. 2168.)

Potentilla Donnell-Smithii Focke.— Caudiculi e radice multicipite breves lignosi stipulis annorum præcedentium scariosis vestiti. Caules prostrati digitales pubescentes, apice ascendentes ramosi pauciflori. Folia inferiora petiolata imparipinnata trijuga vel bijuga, foliolis approximatis, *infinis majoribus manifeste petiolulatis*, aliis lateralibus subsessilibus. Foliola inæquilatera sub-ovata inciso-serrata, serraturis confertis obtusis, utrinque appresse pilosa. Folia superiora ternata breviter petiolata, foliolis illis foliorum inferiorum similibus. Stipulæ vaginantes petiolo adnatæ, inferiores scariosæ, supremæ magna ex parte liberæ ovatæ dente uno alterove præditæ. *Flores breviter pedunculati*, pedunculo diametrum floris fere æquante, folia vix superante. *Bracteolæ calycinæ* sepalis fere æquilongæ *trilobæ* (vel inciso-tridentatæ); sepala late ovata, interdum dente uno alterove prædita. Petala obovata sepalis longiora lutea. Styli subterminales basi incrassati. Torus hirsutus.— Planta alpina humilis. Habitu ad *P. dissectam* Pursh, *P. Richardii* Lehm. et *P. Ehrenbergianam* Schldl. accedit, sed et ab his et ab omnibus aliis speciebus Americanis distinguitur bracteolis calycinis trilobis.— Bottom of crater of extinct Volcan de Agua, alt. 12,000 feet, April, 1890, J. D. S. (Ex Pl. cit. 2144.)

AGRIMONIA PARVIFLORA Ait.? var. **macrocarpa** Focke.— Differt a planta typica fructibus majoribus, foliolis paucioribus et brevioribus.— The determination is provisional. In many cases it is very difficult to trace the limits between the closely allied species of *Agrimonia*. The Guatemala specimen agrees in essential points with the *A. parviflora* of the United States. Its fruits are much larger, but show the same shape and the same direction of spines. The leaflets are less numerous and nearly as narrow, but shorter. These differences are not very important, and therefore I prefer at present to consider the plant as a variety. A more complete acquaintance, however, will perhaps disclose distinctive marks of greater importance. (Focke).—Coban, Dept. Alta Verapaz, alt. 4,300 feet, Feb., 1889, v. Türckheim. (Ex Pl. cit. 1409.)

Tibouchina Bourgaeana Cogn. (§ DISTANTHERA); ramis setis arcte adpressis basi tuberculatis subsparse armatis; foliis mollibus, anguste lanceolatis, longiuscule acuminatis, basi satis attenuatis, subtiliter serrulatis, utrinque adpresse pilosis, 5-nerviis, nervis lateralibus basi longiuscule coalitis; cymis plurifloris; calycis tubo ovoideo, lobis subulatis, tubo brevioribus; staminibus omnine glabris, subaequalibus; antheris brevibus, oblongis, apice obtusis, connectivo basi brevissime producto. Rami graciles, erecti. Petiolus 0.5–1.5cm. longus. Folia 4–8cm. longa, 8–17mm. lata. Calycis tubus 2.5mm. longus; lobi 1.5–2mm. longi. Petala lilacina, ciliata, apice setoso-apiculata, 4–5mm. longa. Antherae 1.5mm. longae. Stylus 4mm. longus.—Yzabal, Dept. Yzabal, alt. 100 feet, April, 1889, J. D. S. (Ex Pl. cit. 1514).

Monochaetum diffusum Cogn. (§ EUMONochaetum); ramis junioribus pilis patulis simplicibus glandulosis densiuscule longeque hirtellis; foliis longiuscule petiolatis, membranaceis, oblongo-lanceolatis, acutiusculis, triplinerviis, subadpresse sparseque setulosis praecipue subtus ad nervos; cymis diffusis, plurifloris; calyce pilis patulis glandulosis sparse hirtello, lobis tubum aequantibus.—Rami graciles, obscure tetragoni, fuscescentes, satis ramulosi, diffusi. Petiolus filiformis, 4–8mm. longus. Folia supra laete viridia, subtus pallida, 3–5cm. longa, 1–1.5cm. lata. Flores rosei, longe graciliterque pedicellati. Calycis tubus cinereus, campanulatus, 4–5mm. longus; lobi patuli, triangulari-lineares, 4–5mm. longi. Petala obovata, apiculata, 6–7mm. longa. Antherae majores arcuatae, 4mm. longae, cauda paulo incrassata elongata sursum revoluta; minores subrectae, 3mm. longae, cauda subfiliformi adscendente.—Pinula, Dept. Guatemala, alt. 4400 feet, Feb., 1890, J. D. S. (Ex Pl. cit. 2217).

Conostegia hirtella Cogn.; ramis junioribus petiolisque setulosis; foliis oblongo-lanceolatis, basi acutis vel acutiusculis, apice longiuscule acuminatis, integerrimis vel vix undulato-denticulatis, 5-plinerviis, supra sparsissime setulosis, subtus ad nervos leviter hirtellis et vix furfuraceis caeteris glabris; alabastris anguste obovoideis, acutiusculis, vix furfuraceis.—Rami satis graciles, obscure tetragoni, juniores densiuscule et breviuscule hirtelli. Petiolus supra densiuscule breviterque hirtellus caeteris breviter furfuraceus, 1–2.5 cm. longus. Folia membranacea, paulo disparia, 13–19 cm. longa, 4–5.5 cm. lata. Paniculae furfuraceo-hirtellae, sub-

multiflorae, fere 1 dm. longae; flores 5-meri, distincte pedicellati. Alabastra 6 mm. longa, 3.5 mm. crassa. Petala late obovata, profunde emarginate, 5-6 mm. longa. Antherae oblongo-lineares, 2.5 mm. longae. Stylus crassiusculus, 3 mm. longus, stigmatē obtuso.—Pansamalá forest, alt. 3,800 feet, May 1887, v. Türckheim. (Ex Pl. cit. 1233.) Distributed as *C. lasiopoda* Benth.?

Miconia Guatemalensis Cogn. (§ OCTOMERIS); foliis breviuscule petiolatis, membranaceis, ovatis, breviter acuminatis, basi rotundatis vel vix emarginatis, integerrimis vel minutissime denticulatis et setulis brevissimis patulis densiuscule ciliatis, 5-nerviis, supra sparse setulosis, subtus ad nervos leviter furfuraceis caeteris brevissime subsparsaque stellato-puberulis; paniculis laxiusculis, submultifloris; floribus 5-meris; calyce leviter furfuraceo, lobis brevissimis, late rotundatis.—Frutex ramis robustiusculis junioribus petiolis paniculisque brevissime et densiuscule stellato-puberulis. Petiolus 1-4 cm. longus. Folia 6-9 cm. longa, 3.5-5 cm. lata. Paniculae 4-8 cm. longae; pedicelli saepius vix 1 mm. longi. Calycis tubus suburceolatus, 2 mm. longus; lobi vix 1 mm. longi. Petala ut videtur rubra, 3 mm. longa. Stylus 4 mm. longus.—Tamahu, Dept. Alta Verapaz, alt. 5,000 feet, July 1887, v. Türckheim. (Ex Pl. cit. 924, 1317.)

Miconia Tuereckheimii Cogn. (§ OCTOMERIS); ramis junioribus petiolis paniculis foliisque subtus brevissime denseque stellato-tomentosis; foliis anguste ovatis, breviter acuminatis, minute denticulatis, 7-nerviis, supra brevissime denseque villosio-hirtellis; floribus 4-meris, pedicellatis; calyce stellato-tomentoso et sparse glanduloso-piloso.—Petiolus 3-8 cm. longus. Folia submembranacea, basi rotundata, 2-2.5 dm. longa, 12-14 cm. lata. Paniculae 2.5 dm. longae; pedicelli glandulosi, 1-3 mm. longi. Calyx 3 mm. longus, breviter lobatus. Petala 3 mm. longa.—Coban, alt. 4,800 feet., Mch. 1881, v. Türckheim (Ex Pl. cit. 581).

Clidema laxiflora Walp., var. β . **longipetiolata** Cogn.—Rami petioli pedunculique longiore pilosi. Petiolus 5-7 cm. longus. Folia profundiore inaequaliter serrulata. Calyx longe denseque hirsutus.—Pansamalá, alt. 3,800 feet, June 1885, v. Türckheim (Ex Pl. cit. 707). Distributed as typical.

Clidemia Donnell-Smithii Cogn. (§ SAGRAEA); ramis junioribus petiolisque pilis patulis elongatis pallide fulvis

dense vestitis; foliis submembranaceis, longiuscule petiolatis, oblongis vel ovato-oblongis, subintegerrimis, longiuscule acuminatis, basi rotundatis, 7-nerviis, supra breviter sparseque setulosis, subtus densiuscule longeque pilosis; cymis parvis, paucifloris; pedicellis longiusculis, minute bibracteolatis; calyce densiuscule longeque hirtello, dentibus exterioribus subulatis, tubum aequantibus.—Rami robustiusculi, teretes, simplices. Petiolus robustiusculus, 2–6 cm. longus. Folia saepius satis disparia, supra intense viridia, subtus viridicinerea, 10–18 cm. longa, 4.5–7.5 cm. lata. Cymae patulae, 2–3 cm. longae; pedicelli filiformes, 6–8 mm. longi; bracteolae subulatae, 1 mm. longae. Calycis tubus campanulatus, 3 mm. longus; dentes exteriores erecto-patuli, flexuosi, 2.5–3 mm. longi. Petala rubra, obovata, apice rotundata, 4–5 mm. longa. Antherae oblongo-lineares, 1.5 mm. longae. Stylus capillaris, 5–7 mm. longus, stigmatate punctiformi.—Pansamalá, alt. 3,800 feet, July, 1888, v. Türckheim. (Ex Pl. cit. 1433.)

JUSSIÆA PERUVIANA L., var. **glaberrima**.—Absolutely smooth throughout: peduncle and calyx nitidous: sepals mucronate and denticulate: flowers 2 in. in diameter: stamens 8, oblong anthers equalling filaments: capsule elongated.—Shrub 12 ft. high, swamp near Dueñas, Dept. Zacatepequez, alt. 5,000 ft., Apr. 1890, J. D. S. (Ex Pl. cit. 2130.)

JUSSIÆA PILOSA H. B. K., var. **robustior**.—Densely branched shrub, 6–8 ft. high, angulate with decurrent petioles and branches: leaves crowded, small, fleshy, scabrid, sprinkled with red glands, margin rubescent: bracts minute, subulate, gland-stipellate: flowers 6-merous, sepals splitting in fruit to 7–9: seeds of one of the cells often biseriate.—Swamp on Lake Antonio near Dueñas, alt. 5,000 ft., Apr. 1890, J. D. S. (Ex Pl. cit. 2123.)

Passiflora (§ CIEGA) **clypeophylla** Mast.—Glabra, ramis complanatis sulcato-striatis; petiolis 20–30 mm. longis medio glandulis duabus majusculis sessilibus munitis; stipulis herbaceis lineari-subfalcatis acutis; laminis circa 6 cm. long. 10 cm. lat. glabris submembranaceis peltatis 5-nerviis subrotundis vel obscure trilobis margine incrassato albido angusto circumdato; pedunculis petiolos subaequantibus simplicibus supra medium articulatis; bracteis caducis minutis; floribus diametro 10–12 mm. tubo brevi campanulato intus

plicato; sepalis oblongis glabris; corona fauciali biseriata filamentosa, filis externis sepala subaequantibus basi purpureis apicem versus luteis, filis intimis lineari-clavatis truncatis procedentibus tertia parte brevioribus; corona media membranacea longitudinaliter plicata purpurea margine indentes acutos inflexos margine eversos divisa, corona infra mediana annulari; gynophoro glabro; ovario globoso glabro.—Barranca del Rubelcruz, Dept. Alta Verapaz, alt. 2,500 ft., April, 1889, J. D. S. (Ex Pl. cit. 1625.)

Passiflora (§ DECALOBA) **allantophylla** Mast.—Setulosa, ramis herbaceis compressis sulcato-striatis; petiolis 15 mm. eglandulosis; stipulis lineari-subulatis; laminis circa 20 mm. long. 40–50 mm. lat. membranaceis glabris subtus sparse ocellatis palmatim 3-nerviis basi late cordatis vel subrotundatis, ad medium bilobatis, lobis divergentibus rotundatis nervo excurrente mucronulatis; lobulo intermedio subobsolete truncato sinu latissimo; pedunculis geminis petiolos aequantibus vel superantibus simplicibus vel superne cymoso-tribrachiatis; bracteis setaceis caducis; floribus 10–12 mm. diam., tubo brevi patelliformi basi intruso extus intusque glabro; sepalis herbaceis oblongis obtusis; petalis hyalinis albidis sepalis parum brevioribus; corona fauciali 1-seriata filamentosa, filis ligulatis flavidis basi purpurascens quam petala parum brevioribus; corona mediana membranacea tubulata apice in lobos acutos inflexos fimbriatulos ad margines eversos divisa; coronâ infra mediana carnosula anguste annulari; corona basilari praecedenti conformi; gynophoro glabro; ovario subgloboso glabro.—Santa Rosa, alt. 5,000 feet, Sept. 1888, v. Türckheim (Ex Pl. cit. 1425.)

Passiflora (§ DECALOBA) **transversa** Mast.—Glabrescens vel subhirtella; ramis complanatis sulcato-striatis; petiolis 2 cm. long. eglandulosis; stipulis subulatis herbaceis; laminis 4 cm. long. 12–13 cm. lat. subcoriaceis glabris transversim ellipticis, 3-nerviis, basi ocellatis, apice mucronulatis nonnunquam excisis; pedunculis petiolis dimidio brevioribus puberulis bracteis setaceis munitis. Floribus diametro 35 mm. tubo patulo brevi extus puberulo intus glabro; sepalis herbaceis oblongo-obtusis; petalis sepalis parum brevioribus albidis; corona fauciali filamentosa biseriali, filis extimis liguliformibus flavis petalis paulo brevioribus, filis intimis fere dimidio brevioribus; corona media membranacea tubulata superne indentes puberulis inflexis divisa; corona basilari carnosula

annulari; gynophoro glabro pentago; filamentis gracilibus; ovario oblongo glabro.—Masaqua, Dept. Escuintla, alt. 400 feet, April, 1890, J. D. S. (Ex Pl. cit. 2099.)

Passiflora (§ DECALOBA) **ornithoura** Mast.—Glabra; ramis compressis sulcato-striatis; stipulis lineari-subulatis caducis; petiolis circa 25mm. long. eglandulosis; laminis 10cm. long. 5 cm. lat. membranaceis subtus sparse ocellatis basi cuneatis vel subrotundatis, palmatim 3-nerviis infra medium bilobatis, lobis late divergentibus lanceolatis, secus nervum medianum fascia albida angusta notatis, lobo intermedio deltoideo subobsoleto; pedunculis geminis simplicibus petiolos aequantibus; bracteis minimis filiformibus acutis; floribus diametri 2cm.; tubo brevi patelliformi extus puberulo intus nitido; sepalis herbaceis oblongo-obtusis; petalis hyalinis albidis sepalis tertia parte brevioribus; corona fauciali 1-seriata e filis crassis clavatis petalis dimidio brevioribus constante; corona mediana membranacea tubulata longitudinaliter plicata margine lobata lobis lanceolatis inflexis marginibus eversis fimbriatulis; corona basilari annulari carnosula; gynophoro tereti glabro; ovario globoso glabro; fructu globoso magnitudine cerasi parvi purpureo; seminibus albidis transverse sulcatis, striisque longitudinalibus notatis.—Dueñas, alt. 5,000 feet, April, 1890, J. D. S. (Ex Pl. cit. 2136.)

Passiflora (§ DECALOBA) **diethophylla** Mast.—Glabra, ramis compressis striatis; petiolis circa 25 mm. eglandulosis; stipulis lineari-subulatis; laminis 5–6 cm. long. 4–5 cm. lat. membranaceis sparse ocellatis vel eglandulosis basi subcuneatis vel subrotundatis palmatim 3-nerviis, infra medium 2-lobatis, lobis divergentibus oblongis obtusiusculis, mucronulatis, sinu lunatim exciso lobulo intermedio obsoleto; pedunculis geminis petiolos aequantibus vel superantibus simplicibus; bracteis setaceis minutis munitis; floribus diametro 15 mm., tubo brevi late campanulato; sepalis herbaceis oblongis obtusis; petalis albidis sepalis dimidio brevioribus; corona fauciali filamentosa, filis uniseriatis lineari-clavatis petalis fere dimidio-brevioribus; corona media membranacea late tubulata plicata margine profunde dentata, dentibus fimbriatulis; corona infra mediana annulari crassa; gynophoro glabro; ovario globoso nitido; fructu magnitudine cerasi globoso glabro purpureo; seminibus compressis apice productis transversim annulato striisque verticalibus notatis.—Dueñas, alt. 5,000 feet, April 1890, J. D. S. (Ex Pl. cit. 2143).

Melothria Donnell-Smithii Cogn. (§ EUMELOTHRIA); monoica; foliis membranaceis, ovatis vel ambitu suborbicularibus, utrinque punctato-scabris, integris vel usque ad medium 3-5-lobatis, lobis apice saepius rotundatis terminali interdum acuto; cirrhis simplicibus; racemis masculis saepius 3-5-floris, petiolo brevioribus; petalis leviter emarginatis; antheris subquadratis, loculis paulo arcuatis, connectivo lato; floribus femineis longepedunculatis, fructu majusculo, triloculari, concolore; seminibus immarginatis.—Rami graciles, elongati, glabri vel vix pilosuli, laeves, alternatim albo et viridi longitudinaliter striati. Petiolus satis gracilis, brevissime subsparsaque hirtellus vel glabratus, 2-5 cm. longus. Folia ovata, integra vel saepius paulo lobata, apice acuta, 6-8 cm. longa, 5-7 cm. lata, supra intense viridia, subtus paulo pallidiora et ad nervos interdum brevissime hirtella, margine minute remoteque denticulata; sinus basilaris saepius angustus, 1-1.5 cm. profundus. Cirrhi graciles, sulcati, glabri. Pedunculus communis masculus gracilis, puberulus, 1.5-3 cm. longus, apice 2-15-florus; pedicelli 3-10 mm. longi. Calyx campanulatus, basi obtusus, glaber, 3 mm. longus, minute denticulatus. Corolla tenuissime furfuracea, fere 1 cm. lata, segmentis patulis. Antherae ciliatae, 1 mm. longae. Flores feminei solitarii. Pedunculus fructiferus filiformis, 2-6 cm. longus. Fructus ovoideus, 3.5-4 cm. longus, 2.5 cm. crassus. Semina pallida, ovata, 3.5-4 mm. longa, 2-2.5 mm. lata. Species *M. scabrae* Naud. (Cogn. in DC. Monogr. Phan. III, 582) proxima.—Masagua, alt. 400 feet, April, 1890, J. D. S. (Ex Pl. cit. 2203).

Var. β . **hirtella** Cogn.—Rami sparse hirtelli. Petiolus densiuscule hirtellus, 3-7 cm. longus. Folia ambitu late ovata, plus minusve lobata, apice saepius obtusa.—Escuintla, alt. 1100 feet, March, 1890, J. D. S. (Ex Pl. cit. 2206).

Var. γ . **rotundifolia** Cogn. Rami petiolique ut in typo. Folia ambitu suborbicularia, saepius satis profunde 5-lobata, lobis apice rotundatis.—San Luis, Dept. Escuintla, alt. 1,000 feet, Mch. 1890, J. D. S. (Ex Pl. cit. 2,208).

Anguria oblongifolia Cogn.; tota glaberrima; foliis breviter petiolatis, integris, oblongis, vix acuminatis, basi acutis, regulariter penninervis; floribus parvis, sessilibus, ad apicem pedunculi communis capitatis; antheris rectis, oblongis, tubo calycis paulo brevioribus, appendice vix perspicua leviter papillosa coronatis.—Rami graciles, laeves, simplices, elongati, striati. Petiolus gracilis, 2-3 cm. longus. Folia tenuiter

membranacea, laete viridia, utrinque laevia, margine integerrima vel vix undulata, 10–13 cm. longa, 5–6 cm. lata; nervi tenues, subtus vix prominentes. Cirrhi graciles, longiusculi, tenuiter striati. Pedunculus communis masculus gracilis, 2.5 dm. longus, apice 8–10-florus. Calycis tubus anguste oblongus, basi rotundatus superne satis constrictus, teretiusculus, 8 mm. longus; dentes lanceolato-lineares, erecto-patuli, 1 mm. longi. Petala suborbicularia, uninervia, extus tenuiter furfuracea, 3 mm. longa. Antherae 5 mm. longae, 1.5 mm. latae. Flores feminei et fructus ignoti. Species *A. longipedunculata* Cogn. (Monogr. Phan. III, 673) proxima.—Rio Dulce, Dept. Livingston, sea level, Mch. 1889, J. D. S. (Ex Pl. cit. 1510).

Anguria diversifolia Cogn. (§ V. ANTHERAE MUTICAE); tota glaberrima; foliis breviter petiolatis, simplicibus, trinerviis, modo integris vel vix trilobatis anguste ovatis acutis basi oblique subtruncatis, modo fere usque ad basim tripartitis segmentis lanceolatis breviter acuminatis inferne contrictis; floribus parvis, sessilibus, ad apicem pedunculi communis breviter spicatis subcapitatis; antheris oblongis, rectis, muticis.—Rami satis graciles, laeves, sulcati, paulo ramulosi. Petiolus gracilis, 1–2.5 cm. longus. Folia membranacea, laete viridia, utrinque laevia, margine integerrima, 8–14 cm. longi; nervi crassiusculi, subtus leviter prominentes. Cirrhi crassiusculi, elongati, inferne sulcati. Pedunculus communis masculus robustiusculus, sulcatus, 2–3.5 dm. longus, apice 10–25-florus. Calycis tubus anguste oblongus, basi subacutus, superne valde constrictus, teretiusculus, 10–11 mm. longus; dentes lineares, erecto-patuli, 2 mm. longi. Petala obovata, extus dense furfuracea, 5–6 mm. longa. Antherae 4–5 mm. longae, 1.5 latae. Flores feminei et fructus ignoti.—Pansamalá, alt. 3,800 feet, November, 1888, v. Türckheim (Ex Pl. cit. 1414.)

Gurania Donnell-Smithii Cogn.; foliis ambitu suborbicularis, basi profunde emarginatis, usque ultra medium trilobatis, lobis anguste ovatis, abrupte longiuscule angusteque acuminatis; calycis tubo breviusculo, ovoideo, tomentoso-cinereo, segmentis subulatis, uninerviis, rubrocinereis, utrinque densiuscule breviterque puberulis, tubo duplo longioribus; antheris late-oblongis, inferne replicatis, connectivo lato, apice appendiculato.—Rami robusti, sulcati, densiusculi et breviuscule hirtelli. Petiolus robustus, striatus, longiuscule

denseque villosus, 8–10 cm. longus. Folia membranacea, utrinque breviuscule sparseque pilosa praecipue subtus ad nervos, supra intense viridia, subtus satis pallidiora, margine remote spinuloso-denticulata, 2.5 dm. longa lataque; lobi exteriores paulo breviores, terminalis basi satis constrictus; nervi robusti, utrinque paulo prominentes, duo laterales basiliares trifurcati, imum sinum marginantes; sinus basilaris 5 cm. profundus. Cirrhi robusti, sulcati, breviusculi villosi. Pedunculus communis masculus robustus, striatus, densiuscule breviterque villosus, 3.5–4 dm. longus, apice 30–40-florus; flores subsessiles. Calycis tubus 8–10 mm. longus, 6–7 mm. latus; lobi erecti, 1.5–2 cm. longi. Petala conniventia, linearia, acutiuscula, extus furfuracea, 6–7 mm. longa, vix 1 mm. lata. Antherae 5 mm. longae, 2 mm. latae, connectivo glabro, apice in appendicem papillosam 1 mm. longam producto. Flores feminei et fructus ignoti. Species *G. Levyanae* Cogn. (l. c. 686) proxima.—Rio Chactá, Dept. Alta Verapaz. alt. 2.500 feet, April 1889, J. D. S. (Ex Pl. cit. 1511.)

Sicyos longisepalus Cogn. (§ EUSICYOS); foliis longiuscule petiolatis, ambitu cordato-ovatis, angulato 5-lobatis, utrinque punctato-scabris, lobis triangularibus, nervis lateralibus imum sinum non marginantibus; cirrhis bifidis; racemis masculis simplicibus, 8–20-floris, folio longioribus; calycis dentibus elongatis; pedunculis femineis apice 3–4-floris; fructu ovoideo, satis compresso, acuto vel obtusiusculo, vix puberulo et setis elongatis persistentibus subsparse vestito.—Rami graciles, sulcati, subglabri. Petiolus robustiusculus, striatus, brevissime puberulus, 3–7 cm. longus. Folia tenuiter membranacea, intense viridia, margine remote vix denticulata, 8–12 cm. longa, 7–10 cm. lata, lobis lateralibus brevibus, acutiusculis, terminali majore, acutissimo; nervi vix prominentes, supra vix puberuli; sinus basilaris acutus, 1–3 cm. profundus. Cirrhi robustiusculi, elongati, striati, glabrati. Pedunculus communis masculus gracilis, striatus, brevissime puberulus, 1–2.5 dm. longus, superne vel fere usque ad medium floriferus; pedicelli filiformes, demum reflexi, 5–10 mm. longi. Calycis tubus subrotatus, vix puberulus, 5 mm. latus; dentes patuli, lineari-subulati, 4 mm. longi. Corolla spureo-alba, vix puberula, segmentis patulis, late ovato-triangularibus, obtusiusculis, 5–7 nerviis, 4 mm. longis. Pedunculus fructiferus 3 cm. longus. Fructus basi rotundatus, 8–10 mm. longus; setae 3–6 mm. longae. Species

S. Deppei G. Don (Cogn. l. c. 876) proxima.—Antigua, Dept. Zacatepequez, alt. 5,000 feet, April, 1890, J. D. S. (Ex Pl. cit. 2202.)

Cephaelis glomerulata (§ CEPHAELIDÆ Muell. Arg. in Fl. Brasil.)—Dichotomous, glabrous: stipules solitary, triangular-truncate, apex fimbriate: leaves oval-lanceolate ($4-5 \times 1\frac{1}{2}-2$ in.), acuminate, base acute, patent secondary nerves about 14 uniting in marginal arches: heads of bracteose glomerules sessile, semi-globose (9 lines high, 1 in. broad); bracts coriaceous, pallid, margin virescent or violaceous, the 6-8 exterior oblate-roundish, of glomerules obovate passing into shorter spatulate membranaceous conduplicate bractlets: calyx scarious ($1\frac{1}{2}$ line), two-thirds free, unequally subulate-toothed: corolla white, half-exsert from bractlet, slender (6 lines), one-fourth-lobed, upper half cano-pubescent within: anthers (2 lines) exceeding filaments: bi-lobed disk equalling ovary; drupe ovoid (3 lines), sulcate, blue.—Shrub 3-4 ft. high with habit and leaves of *C. dichotoma* Rudge and *Psychotria Martiana* Muell. Arg., but differing from both by developed bractlets of glomerules and of flowers.—Swampy woods on Rio Dulce, sea-level, Mch. 1889, J. D. S. (Ex Pl. cit. 1637).

EXPLANATION OF PLATE I.—Fig. 1, flowering branch. Fig. 2, head with all but one of the bracts removed. Fig. 3, glomerule. Fig. 4, exterior bract. Fig. 5, exterior bractlet. Fig. 6, interior bractlet. Fig. 7, stipule. Fig. 8, flower. Fig. 9, corolla of long-styled flower laid open. Fig. 10, vertical section of short-styled flower with corolla removed. Fig. 11, drupe. (Figs. 1 and 2 are natural size; the others are variously magnified.)

LOBELIA LAXIFLORA H. B. K., VAR. **insignis**.—Glabrous in every part: stem simple, stout; 3-4 ft. high: leaves densely confert, linear-lanceolate (7×1 in.), sessile, glandular teeth appressed: peduncles bractless, nearly equalling leaves: flowers 2 in. long: calyx-segments one-fifth as long, linear, twice exceeding tube: corolla carinately nerved; tube half as broad as long, yellow varied with red; divisions of upper lip red on both sides; lower lip plicate, half as broad as long, yellow margined with red.—Mr. Hemsley refers to the type a plant collected by Salvin in similar locality. The congested large leaves and flowers impart a distinct habit.—Slopes of Volcan de Agua, alt. 10,000 feet, April, 1890, J. D. S. (Ex Pl. cit. 2173.)

MACLEANIA CORDATA Lemaire, var. **linearifolia**.—Leaves obscurely penninerved, above conspicuously reticulated, linear-lanceolate ($4-5 \times \frac{1}{2}-\frac{3}{4}$ in.), regularly tapering from

rounded base to acute mucronulate apex.—Pansamalá forest, alt. 4,000 feet, July 1887, v. Türckheim (Ex Pl. cit. 1332.)

ARCTOSTAPHYLOS PUNGENS H. B. K., (*not Gray*), var. **cratericola**.—Younger parts and racemes puberulous: branchlets trigonal from stout short (1 line) petioles: leaves crowded, smooth and shining, punctate beneath, oval or obovate (6–7 × 4–5 lines), each end obtuse, apex callose: capituliform racemes scarcely equalling leaves, 4–6-flowered, coloured bracts exceeding abbreviated pedicels: filaments circularly dilated at middle, chiefly beardless; anthers nearly half as long, equalling short smooth awns: style exceeding stamens.—Tufted, with prostrate branches a foot or more long, on rocks in the crater of Volcan de Agua, alt. 12,000 feet, April 1890, J. D. S. (Ex Pl. cit. 2159.)

SOLANUM OLIVÆFORME, Botan. Gazette, XIV. 28, XV. 28.

EXPLANATION OF PLATE II.—Fig. 1, portion of a plant in flower. Fig. 2, portion of a plant in fruit. Fig. 3, vertical section of flower. Fig. 4, stamen. Fig. 5, pistil. Fig. 6, transverse section of fruit. Figs. 1 and 2 are natural size; the others are variously enlarged.

Daphnopsis Tuerekheimiana (§ **NORDMANNIA** Benth. et Hook.)—Epiphytal (?), dichotomous: petioles short, incrassate; leaves coriaceous, glabrous, ovate-lanceolate or lanceolate (3–5 in.), caudately produced, base acute, margin revolute, veins immersed: umbelliform staminate fascicles lateral and terminal, subsessile, bracteate, pilose, 5–7-flowered, pedicels short: perianth 5–6-times longer (3½–4 lines), clavate, smooth within, lobes one-fifth as long with alternate ones the broader: superior stamens partly exsert, interior inserted above middle of tube: abortive ovary hirsute, globose, equalling style, ovule manifest; stipe long as pistil (½ line); scales as long, united in cylindrical dentate sheath splitting variously: fertile flowers not seen.—Inflorescence apparently similar to that of a recent Brazilian species, *D. Sellowiana* Taubert, Bot. Jahrb. XII, Beibl. 7, which seems incorrectly referred to the section **NEIVIRA** Griseb.—Pansamalá forest, alt. 3,800 feet, Sept. 1886, v. Türckheim. (Ex Pl. cit. 1039.)

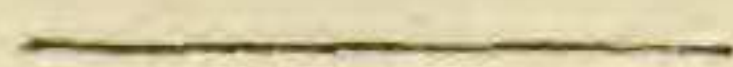
MYRIOCARPA LONGIPES Liebm., var. **Yzabalensis**.—Leaves round-oval, abruptly cuspidate, petioles from a third to nearly as long and like veins strigillose: branches of pistillate inflorescence 2–3, twice dichotomous, flowers sessile: achenia black and shining, scabrid with sparse short hairs: stigma

conspicuous.—Shrub 6–8 ft. high, Monte Cachirulo, Dept. Yzabal, alt. 900 ft., Apr. 1890, J. D. S. (Ex Pl. cit. 1644).

Triuris brevistylis.—About 3 in. high, aphyllous: inflorescence uniparous, twice furcate, peduncles $\frac{1}{2}$ –1 in. long, semi-amplexicaul bracts with rounded lobes at base: perianth-segments with twice longer appendages 3–4 lines long: styles pubescent, sub-terminal, capillary, deflexed, shorter than obtuse carpels of ovary; stigma oblique; fruit obovate, puberulous.—*T. diaphana* Miers, one-third as large, with cauline leaves, sheathing entire bracts, less developed inflorescence, is distinguished best by carpels elongated into terminal subulate styles.—On decayed trunks of trees, Pansamalá forest, alt. 3,800 feet, Sept. 1888, v. Türckheim (Ex Pl. cit. 1384).

NEPHRODIUM DUALE, described as new, BOT. GAZ., XV. 29, must be referred to *Aspidium ascendens* Hew., which in view of the distinctly reniform involucre of the present specimens may be better designated as *Nephrodium ascendens*. It has been known hitherto only from Jamaica.

Baltimore, Md.



On certain new or peculiar North American Hyphomycetes. I.

Oedocephalum, Rhopalomyces and Sigmoidomyces n. g.

ROLAND THAXTER.

(WITH PLATES III AND IV.)

The species included in the above genera, although the similarity in their general type of fructification may justify their association for convenience as imperfect forms, must be considered as representatives of several widely different groups of so-called perfect fungi. Although in the plant subsequently described as a new genus there is at present no indication of any definite relationship to some higher form, there exists in the case of Rhopalomyces a probable connection with the Zygomycetes, as has been suggested by Van Tieghem,¹ while in Oedocephalum, a somewhat heterogeneous

¹ Bull. d. l. Soc. Bot. d. France, 1886, p. 494.